Material Safety Data Sheet May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements. U.S. Department of Labor Occupational Safety and Health Administration (Non-Mandatory Form) Form Approved OMB No. 1218-0072

IDENTITY (As Used on Label and List)

Bonide Stump Out

Date: April 7, 2004

Section I

Bonide Products, Inc. (800) 424-9300 6301 Sutliff Road (315) 736-8231 Oriskany, NY 13424

Section II - Hazardous Ingredients/Identity

Hazardous Components (Specific Chemical Identity: Common Name(s) OSHA PEL ACGIH TLV Other Limits % (Optional)

Sodium Pyrosulphite CAS# 7681-57-4 > 98%

Section III - Physical/Chemical Data

TRADE NAME: Sodium Metabisulfite

PRODUCT CODE: SMBSHAC

MOLECULAR WEIGHT: 190,1 g/mol

MELTING POINT: >170°C

VAPOR PRESSURE (mm/hg): N/A

REACTIVITY IN WATER: N/A

CHEMICAL NAME: Sodium Pyrosulphite

CHEMICAL FORMULA: Na2S205

BOILING POINT: N/A

SPECIFIC GRAVITY: N/A

VAPOR DENSITY(air=1): N/A

SOLUBILITY IN WATER: approx. 650 g/l

CHEMICAL FAMILY:

SYNONYMS: Sodium Disulfite, Sodium Pyrosulphite CAS#: 7681-57-4

APPEARANCE AND ODOR: White powder, of sulphur dioxide OTHER: Bulk density: 1100 to 1200kg/m³

Section IV - Fire and Explosion Hazard Data

N.F.P.A. HAZARD RATINGS HEALTH: Health: 2 Fire: 0 Reactivity: 2 Special: 0=minimal 1=slight 2=moderate 3=serious 4=severe N/R=not rated FLASH POINT (Method Used): N/A FLAMMABLE LIMITS: N/A AUTOIGNITION TEMP: N/A UNUSUAL FIRE AND EXPLOSION HAZARD: None

EXTINGUISHER MEDIA: Fire extinguishing method of surrounding areas must be discussed.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Keep unnecessary people away, isolate hazard area and deny entry. F. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

HAZARDOUS COMBUSTION PRODUCTS: Product itself is non-combustible

EMERGENCY RESPONSE GULDEBOOK INFORMATION: None

Section V – Reactivity Data

STABILITY: Normally stable. Avoid elevated temperatures. CONDITIONS TO AVOID: Moisture, heat, flames, acids, alkalis, sodium nitrate. Evolution of sulphur dioxide under influence of acids. Violent reaction under influence of oxidizing agents.

INCOMPATIBLE MATERIALS: Acids, Alkalis, Oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Sulphur dioxide

POLYMERIZATION CONDITIONS TO AVOID: N/A

Section VI - Health Hazard Data

ROUTE(S) OF ENTRY: Ingestion, Inhalation and Dermal

POTENTIAL HEALTH EFFECTS: May be harmful if swallowed. In some asthmatics and other "sulfite-sensitive" individuals, may cause severe allergic reactions if swallowed. Contact with acids liberates irritating sulfur dioxide gas.

EYES: Dust may irritate or cause burning sensation.

SKIN: Prolonged or repeated contact with dust may cause irritation.

CARCINOGENICITY (NTP): Not listed. (IARC): Not Listed. (OSHA): Not listed.

FIRST AID INFORMATION:

INGESTION: Seek medical attention. If victim is conscious and alert, give 2-3 glasses of water to drink and do not induce vomiting. Never give anything to eat or drink to an unconscious, give water to further dilute the chemical.

EYES: In case of contact with eyes, rinse thoroughly with plenty of water and seek medical advice. Flush eyes with large quantities of running water for a minimum of 15 minutes. If victim is wearing contact lenses, remove them. Hold eyelids apart during the flushing to ensure rinsing of entire surface of the eye and lids with water. DO NOT let person rub eye(s). Do not attempt to neutralize with chemical agents. Oils/ointments should not be used at this time. Get medical attention if eye irritation occurs.

SKIN: In case of contact, wash with plenty of soap and water for at least 15 minutes. Seek medical attention. Remove contaminated clothing and shoes before reuse or discard if they cannot be thoroughly cleaned.

INHALATION: Remove to fresh air. If breathing becomes difficult, oxygen may be given, preferably with a physician's advice. If not breathing, give artificial respiration. Get medical attention.

Section VII – Accidental Release Measures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wear appropriate protective gear for the situation. Dike or retain dilution water or water from fire fighting for later disposal. Sweep or vacuum up and place in an appropriate closed container. Clean up residual material by washing area with water and detergent. DO NOT RETURN MATERIAL TO ITS ORGIINAL CONTAINER. Prevent material from entering public sewer system or any waterways. Runoff from fire control or dilution water may cause pollution. RCRA Hazard Class: N/A

Section VIII - Storage and Handling

HANDLING AND STORAGE: Advise on safe handling: Provide exhaust ventilation if dust is formed. FURTHER INFORMATION ON STORAGE CONDITIONS: STORAGE: Cool and dry

Section IX – Exposure Controls/Personal Protection

The following information is applicable during the manufacturing process or when handling bulk quantities of this

RESPIRATORY PROTECTION: When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the latest OSHA standard (29 CFR 1910.134) and/or ANSI Z88.2 recommendations.

SKIN PROTECTION: Skin contact should be minimized through use of gloves and suitable long-sleeved clothing (i.e. shirts and pants). Consideration must be given to both to durability as well as permeation resistance.

EYE PROTECTION: Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material. It is generally regarded as good practice to wear a minimum of safety glasses with side shields when working in industrial environments.

OTHER PROTECTION: Minimize breathing dust. Avoid prolonged or repeated breathing of dust and contact with skin. Remove contaminated clothing; launder before reuse. Cleanse skin thoroughly after contact. Before meals and end of work period.

VENTILATION PROTECTION: Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: local exhaust ventilation at the point of generation.

EXPOSURE LIMITS: N/A

HYGENIC PRACTICES: All food/smoking materials should be kept in a separate area away from the storage/use location. Eating, drinking and smoking should be prohibited in areas where there is a potential for significant exposure to this material. Before eating, drinking or smoking, hands and face should be thoroughly washed. Facilities storing or using this material should be equipped with an eyewash and safety shower.

Section X – Toxicological Information

SENSITIZATION: N/A **INGESTION EFFECTS:** Acute oral toxicity 1540 mg/kg

Species: Rat

KEEP OUT OF REACH OF CHILDREN

ABBREVIATION KEY

N/A: NOT AVAILABLE OR APPLICABLE

N/E: NOT ESTABLISHED

TLV: THRESHOLD LIMIT VALUE

TWA: TIME WEIGHTED AVG./8 HOUR WORKDAY

STEL: SHORT TERM EXPOSURE LIMIT

D.O.T.: DEPARTMENT OF TRANSPORTATION

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